

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

INDIANAPOLIS

US EPA RECORDS CENTER REGION 5



478116

OFFICE MEMORANDUM

DATE: May 22, 1991

TO: George Oliver, Chief
Special Projects Section
Office of Solid & Hazardous Waste Mgt.

FROM: Jim Smith, Project Manager
Superfund Section
Office of Environmental Response

SUBJECT: Disposal of Containerized Drill Cuttings;
Himco Inc. Superfund Site

THRU: Reggie Baker

*gpb for Bob
5-22-91*

Phase I of the Remedial Investigation of the Himco Inc., Superfund site in Elkhart, Indiana included development of on- and off-site monitoring wells; a total of six wells were drilled. Cuttings collected during well development were placed in labeled drums and are now stored in a secure area on-site. Safety clothing worn during on-site investigations was also placed in labeled drums.

During a recent (May 9, 1991) meeting with Donohue Associates and U.S. EPA, the State was requested to determine how these drums were to be disposed. Specifically, could the cuttings be dumped on-site; were they considered as hazardous, special or other type of waste; and, if required to place in an active landfill, where was the closest licensed landfill that could accept the material?

The drill cuttings were sampled at two-foot intervals as the wells were developed. Attached are results of sample analyses. Contaminants and associated concentrations on drummed safety clothing is unknown. A complete listing of all contaminants identified at the Himco Inc. site can be provided if necessary.

Could your office make a recommendation on disposal of the drums based on the information provided in the attached?

If I can answer any questions or provide additional information, please call me at 243-5054. Thank you for your assistance.

JS/js

Attachment

cc: Pat Carrasquero, OER, PMB

HIMCO INC.
WELL DEVELOPMENT

	GEOTECHNICAL BORING					
	GT01	GT02	GT03	GT04	GT05	GT06
CONTAMINANT	UG/KG					
METHYLENE CHLORIDE						
	4		4			55
	4					43
	3					
	3		3			
ACETONE						
	110		120		110	950
	67		17	17	89	780
	40		16	15	68	500
	29				42	45
CARBON DISULFIDE						
	4					30
1,1-DICHLOROETHENE						
	11			13	5	
	5			12		
	4					
	4					
1,2-DICHLOROETHENE (total)						1
1,1,1-TRICHLOROETHANE						3
						2
TOLUENE						
	5		5	2	9	43
	4		4	2	5	8
	4		4		3	5
	2		3		2	
	2		2			
1,4-DICHLOROBENZENE						
	81		120	92		
	110		120	75		
	80		100			
			100			
			100			
DIETHYLPHthalATE						
					140	

DI-N-BUTYLPHTHALATE

310		130	120	130
140				100
130				92
130				
86				

BIS(2-ETHYLHEXYL)PHTHALATE

6000	93	65	140	1800	4000
200	73	63	50	340	570
140	38	49	42	200	560
		47		130	320
					190

MG/KG**ALUMINUM**

5720	5370	1830	5720	4810	3920
4790	5100	1760	5380	3580	1880
3960	3860	1570	3940	636	660
3840	2790	1190	2550	474	597
3600	2490	1140	2230	445	537
2800		1050		395	

ANTIMONY

8.5		13.0		5.3	6.6
6.8		12.7			5.3
6.6		11.5			

ARSENIC

3.7	1.6	3.3	5.6	3.1	1.1
3.1	1.5	3.1	2.5	1.6	0.93
2.8	1.3	2.6	2.0	0.55	0.60
2.1	0.56	1.0	1.6	0.28	0.51
2.1		1.0	1.2		0.30
2.1		0.83			

BARIUM

37.5 B*	62	8.8 B	61.1	14.7 B	35.3 B
23.9 B	16.6 B	8.6 B	17.2 B	13.0 B	13.0 B
22.5 B	16.3 B		11.4 B	5.0 B	4.3 B
19.3 B	11.7 B		9.5 B	3.5 B	3.6 B
13.2 B	10.5 B		6.8 B	2.8 B	
11.7 B				2.7 B	
				2.4 B	

BERYLLIUM

0.71 B	0.28 B	0.41 B	0.68 B
0.68 B		0.27 B	0.68 B
0.67 B		0.27 B	
0.63 B			

CALCIUM

674 B	386 B	68900	8000	30600	117000
627 B	360 B	54500	589 B	24500	55200
575 B	264 B	53400	512 B	23900	37800
575 B	252 B	36600	498 B	23800	736 B
568 B	219 B	35500	236 B	355 B	393 B
418 B	162 B	34800		246 B	333 B

CHROMIUM

9.5	9.7	4.4	10.7	67.4	7.1
8.9	7.9	3.5	8.4	5.8	4.5
7.8	6.5	3.4	7.3	2.9	2.5
7.0	6.3	2.7	7.1	2.8	2.1
6.9	4.8	2.1	5.1	2.5	
5.9		1.8	4.3		

COBALT

5.2 B	3.7 B	2.6 B	4.5 B	3.3 B	2.2 B
4.9 B	2.4 B	2.4 B	3.3 B	2.3 B	2.2 B
4.8 B	2.2 B	2.1 B	3.1 B	1.9 B	
3.3 B	1.7 B	1.7 B	2.1 B	1.8 B	
3.2 B	1.7 B			1.7 B	
2.3 B					

COPPER

8.0	5.0 B	5.2	4.9 B	7.7	5.0 B
8.0	4.9 B	4.0 B	4.7 B	3.9 B	4.2 B
7.6	4.7 B	3.4 B	4.3 B	3.5 B	3.8 B
7.6	3.7 B	3.1 B	3.8 B	3.0 B	3.2 B
5.2 B	3.4 B	2.9 B	3.5 B	2.5 B	
		2.2 B			

CYANIDE

2.4				0.2 B	
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IRON

8880	6870	8790	8390	7850	4690
7610	6370	4470	6740	7360	3450
6910	4340	4020	6450	5520	3390
6480	3130	3980	6410	2200	3120
5260	2629	3940	4480	1830	2840
5030		3460		1630	2090
				1410	

LEAD

11.6	7.8	5.4	7.2	7.4	8.1
3.3	3.8	4.7	7.0	3.1	2.5
2.9	2.8	2.7	3.6	1.7	2.0
2.3	2.8	2.5	3.6	1.7	1.5
2.2	2.1	1.9	2.9	1.1	1.4
2.1		1.7	1.8		

MAGNESIUM

1220 B	964 B	23800	2270	6570	11000
1040 B	762 B	13400	1570	6380	8790
843 B	588 B	10200	1130	6170	7290
796 B	509 B	6910	976 B	4620	515 B
748 B	421 B	6800	772 B	927 B	440 B
710 B		6730		864 B	
				458 B	

MANGANESE

228	402	138	421	111	205
204	54.7	119	180	91.9	143
147	50.8	112	168	76.1	103
130	27.7	89.1	109	54.6	81.4
63.7	24.6	87.5	31.1	49.1	70.0
49.1		77.6		45.9	

MERCURY

0.21

NICKEL

10.8	7.9 B	8.1 B	10.5	36.4	7.0 B
9.5	6.5 B	8.1 B	10.4	5.5 B	5.4 B
6.6 B		5.1 B	10.2	4.9 B	5.2 B
			7.5 B		
			3.8 B		

POTASSIUM

406 B	300 B	175 B	263 B	236 B	141 B
369 B	252 B	157 B	213 B	138 B	137 B
290 B	234 B		206 B	105 B	121 B
267 B	184 B			89.5 B	115 B
229 B	173 B				82.4 B

SELENIUM

0.67 B	0.39 B			0.27 B	
	0.27 B				
	0.25 B				

SODIUM

39.9 B				53.8 B	87.2 B
33.4 B					57.8 B
30.9 B					
28.4 B					
26.0 B					

VANADIUM

15.0	12.6	5.9 B	14.1	12.2	10.4 B
10.9	11.8	5.9 B	11.6	10.7	4.1 B
10.6 B	7.4 B	5.7 B	10.5 B	2.9 B	3.5 B
10.5 B	6.1 B	5.0 B	6.5 B	2.4 B	3.2 B
10.2 B	5.1 B	3.6 B	6.2 B	2.4 B	2.9 B
10.0 B		3.6 B		1.8 B	

ZINC

20.7	20.5	12.7	22.4	12.4	8.8
17.6	13.8	12.1	17.2	6.7	8.4
15.3	10.8	10.3	13.6	6.6	8.3
14.4	8.8	10.0	13.5	5.6	5.7
13.5	6.6	8.4	9.4	4.8	5.6
7.4		6.5		4.5	B

* B - Indicates that lab blank sample contained this contaminant.
Results are suspect.